

REMARKS/ARGUMENTS:

Applicant respectfully requests reconsideration of the above-identified patent application in view of the amendments set forth above and the below remarks.

Pending claims 1-12 are rejected. Claim 1 is amended to incorporate the subject matter of claim 6, which is herein cancelled.

Specification

The Abstract of the Disclosure is replaced with a narrative of less than 150 words.

Claim Objections

Claim 1 is amended to end with a period.

Claim Rejections

Claims 1-12 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,611,923 to Mutualik et al.

Claim 1 is amended to incorporate the subject matter of claim 6, which is herein cancelled. More particularly, amended claim 1 requires an enterprise storage system for performing a file level backup operation on data using a mirror disk and a primary disk, including an extent mapping mechanism *to perform extent mapping* on files to be backed up in a given backup session *before the split mechanism splits the mirror* for the same given backup session, and *an extent map check and update mechanism* to check, *after* the split mechanism splits the mirror for the same given backup session, *whether any files have been updated* in a manner so as to *require additional or revised extent map information*.

With this arrangement, as shown and described in conjunction with Figures 3 and 4 of the specification, by performing extent mapping *prior* to splitting the mirror and then *updating* extent mapping as necessary after splitting the mirror, the database outage time 408 (FIG. 4) is

significantly less than the database outage time 406 when a complete extent mapping is performed *after* the mirror split. FIG. 3 shows a path on the left with extent mapping performed after the mirror split and a path on the right with extent mapping performed *before* mirror split and extent map checking and updating performed after the mirror split. It will be appreciated that updating an existing extent map consumes less time than creating an extent map.

Applicant submits that Mutualik discloses a process substantially similar to that shown on the left side of Figure 3 of the present specification, where extent mapping is performed *after* the mirror split. In reviewing the passage in Mutualik cited with regard to claims 6 and 7, i.e., col. 9, lines 42-63, Applicant can find no teaching of the extent mapping prior to mirror splitting and extent map updating after mirror splitting, as claimed. Applicant submits that Mutualik teaches a system for backing up data stored in multiple mirrors on a storage subsystem under the control of a backup server in a manner similar to the left side of Applicant's FIG. 3, as noted above.

The arrangement of amended claim 1 provides certain advantages over Mutualik and other systems. By reducing the database outage time, the impact of the outages is reduced and operational continuity is enhanced. Further, some applications, such as certain database applications, require minimal outage time and may not work if outage times are excessive.

Accordingly, Applicant submits that claim 1 is patentably distinguishable over Mutualik. For substantially the same reasons, Applicant submits that claims 2-5 and 7-12 are also distinguishable over Mutualik.

In view of the above, Applicant submits that claims 1-5 and 7-12 are in condition for allowance and a notice thereof is respectfully requested.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

Applicant does not acquiesce to any assertion made by the Examiner that is not addressed here. In addition, Applicant may have made certain amendments to expedite allowance of the application and reserves the right to pursue the originally filed claims in continuation applications without prejudice.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

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Respectfully submitted,

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